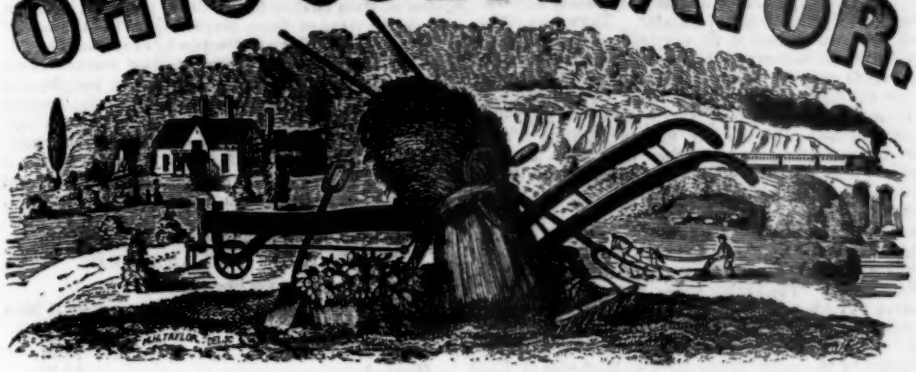
OHIO CULTIVATOR.



Devoted to Agriculture, Horticulture and Domestic Economy.

Published on the 1st and 15th of each month.--Terms, $1 per year--Four Copies for $3.

VOL. V. COLUMBUS, O., JUNE 15, 1849. NO. 12.

TERMS:

ONE DOLLAR PER YEAR IN ADVANCE,

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Hay Making.

As the season for hay making, has arrived, a few practical hints thereon, may be found useful to a portion of our readers. In this as in all other branches of farm labor, it is desirable in this country to combine cheapness and efficiency in its execution. Where a very large business is done and the ground perfectly level and free from stumps, stones and other obstructions, Ketchum's grass mowing machine, might with much advantage be employed. The machine is made entirely of iron, is very portable and durable, and will without difficulty cut twelve acres of the heaviest grass per day. It will cut light as well as heavy grass, as close to the ground as could be done with an ordinary grass scythe, and will spread it much more evenly than by any other process. When this machine is used in connection with the best decription of horse rake, hay may be made for less than one half what it would cost, if done by hand labor.

A great variety of opinions prevail in regard to the proper time for cutting hay, but those who have carefully experimented for the purpose of fairly testing this matter, agree that it should be cut when just past full bloom. This applies to clover as well as the varieties of grasses. Our own experience, which has been extensive, fully confirms this opinion.

If a first rate quality of hay be desired, it should be exposed during the process of curing, to the drying and parching influence of the sun, as short a period as possible. After being allowed to remain undisturbed in the swarth for a few hours, say from four to six, the swarths may be turned, and at the close of the evening the entire quantity mown during the day, should be put up in small cocks for the purpose of curing, each containing not more than a half a hundred weight of cured hay.—By spreading clover in the process of curing, an immense loss in leaves, heads, &c., is sustained, and therefore it is a much better practice, to make it up into small cocks as soon as it becomes wilted, and before any considerable portion of it becomes discolored, by the influence of the sun, dews or rains.

If it is not convenient to draw the hay into barns, as soon as it becomes cured, which will generally be the case in two days from the time it is taken out of the swarth, it would be well to put from five to six of the small cocks into one, where it may remain for a number of days without much risk.

In curing hay, sufficient space is not allowed to elapse from the time the grass is cut, to the period when it is put into the stack or barn. When it is important that the business should thus be hurried, a layer of straw scattered occasionally through the mow, will prevent in a great measure, the newly mown grass from moulding, or musting, and besides, the straw will be improved for fodder, sufficient to pay the expense of pitching it in and out of the mow. In those localities where hay bears a high value, salt at the rate of one bushel per ton, may with advantage be scattered among the new hay as it is put into the barn or stack.

Those who have not yet provided themselves with an improved revolving horse rake, if they mow only 15 or 20 acres of grass, will find it a profitable investment, to purchase one, as it will more than pay the entire expense in a single season.

The American Fruit Culturist, (By J. J. Thomas.)—This new work, having been delayed beyond the time announced for its appearance, it seems necessary to state, that the late severe illness of the author when it was nearly completed having arrested its progress through the press, it is now concluded, in order to make it as correct and complete as possible, to defer its publication till near the commencement of another fruit season, or on the first of August.—*Albany Cultivator.*

Report on the Bread Stuffs of the U. States,

Made to the Com'r. of Patents, By Lewis C. Beck, M. D.

The above is the title of a pamphlet that has recently reached us, through the politeness of the Hon. Edmund Burke, late Commissioner of Patents. The object of the work, has been to show in the simplest manner, and with as few technicalities as possible, how the value of various bread-stuffs may be determined, their injury guarded against and their adulterations detected. The agricultural resources of the United States is now duly appreciated by all classes, and the fact that our country is destined to become the granary of the world, is no longer a matter of doubt. During the year 1847, breadstuffs to the value of $43,000,000 were exported from this country to Great Britain and Ireland alone, which proves to a demonstration, that the day is not far distant, when the surplus products of our soil, will net a larger return, than would be sufficient to pay for foreign goods imported into the country. The author states, that one of the most important points connected with the subject of wheat and flour, is the proportion of water or moisture they contain. In consequence of the large quantity of water that much of the wheat in the northern countries of Europe contains, may be attributed the difficulty of keeping it any length of time in the public granaries. It has been shown by a comparative experiment tried some years ago upon Scotch and English wheat of apparently equal quality, that eight bushels of the latter though yielding rather less flour, yet when made into bread, gave 13 lbs. more than the former. This is accounted for by the greater strength of the sunshine under the climate of England, having an effect upon the grain when ripening, which occasions the flour to absorb more water in the formation of dough. It appears that the Alabama and the southern wheat flours, generally yield more bread than the northern and western. The gain in favor of the Alabama, as compared with the Cincinnati, is said to be 20 per cent. It is also stated by one of the most extensive London bakers, that American flour will absorb 8 or 10 per cent more of its own weight of water in manufacturing it into bread or buiscuit than the English wheat.

In regard to American wheat and wheat flour, it may be remarked, that the proportion of water naturally existing in them is often increased by carelessness in harvesting the grain, transport and storage. In one sample of Indiana wheat flour, recently analysed, which was sour and had but little more than one half the usual quantity of gluten, the injury was probably caused by the hurried mode of packing. The books of one inspector of New York, shows, that in 1847 he inspected 218,679 barrels of sour and musty flour. He certifies that in this amount there was a loss sustained of $250,000. Mr. Brondgeest, the late president of the Montreal Board of trade, proposes the shipment of grain in barrels like flour, and the proper kiln-drying of such varieties as are known not to keep well. The souring of flour, either on the river or sea voyage, or after warehousing can be perfectly prevented by the use of the drying kiln, either to the flour, or the wheat previous to grinding.

In the report of the Commissioner of Patents, it appears that Ohio flour, after having been subjected to the drying process, was kept in the southern, and South American ports in good merchantable order, and in weather in which other flour not thus prepared, invariably spoiled. The process of drying was conducted by the employment of hot air, and 18 pounds of water are thus expelled from a barrel of flour. One barrel of flour, when in dough, contains about 11 gallons, or 90 lbs. of water, 2 gallons of yeast or leaven, and 3 lbs. of salt; making a mass of 305 lbs., which composition in baking about 40 lbs., leaving in bread about 265 lbs. The bread thus exceeding in weight the flour employed, about 33.50 per cent.

ANALYSIS OF WHEAT FLOUR.

The following analysis will show conclusively, the importance of thoroughly drying wheat before grinding it into flour, and likewise the necessity of packing it in air tight barrels, if intended for exportation. The inexperienced in these matters must have been frequently struck with astonishment at the great disparity that exists in the value of flour, in the principal export markets of our country. It would scarcely appear creditable, that a difference of from twenty-five to thirty per cent., would be made in the value of flour, manufactured from wheat of uniform quality. But nevertheless by examining the value of the different brands in the best flour markets of the country, it will be found that the choicest samples will bring from 75 to 1,00 per barrel more than the average grades. There appears no valid reason why such a vast difference should exist, and as the country sustains annually a loss of some million of dollars from this source, it is a matter that will deserve the attention of the general government, and doubtless in its further investigations, will be prosecuted under the superintendence of the Hon. Thomas Ewing, the head of the Home Department.

RESULTS OF THE ANALYSES.

NEW JERSEY.

I. Sample of wheat flour purchased at a store in New Brunswick.

Water	12.75
Gluten*	10.90
Starch	70.20
Glucose, dextrine, &c	6.15
	100.00

II. Sample of wheat flour purchased at a store in New Brunswick.

Water	12.35
Gluten	8.31
Starch, glucose and dextrine	79.34
	100.00

The gluten was inelastic, as well as reduced in quantity. The flour had suffered by constant exposure, while sold at retail during the summer. This is almost invariably the result of this mode of selling flour, as it is scarcely possible to prevent the deteriorating action of air and moisture. But the extent of the injury which sometimes occurs, is no doubt due to the carelessness of the seller.

NEW YORK.

III. Wheat flour from pure Genesee wheat. P. Garbut's mills, Wheatland, Monroe county. [From Mr. E. A. Durant, Albany, N. Y.]

Water	13.35
Gluten	12.82
Starch	68.00
Glucose, dextrine, &c	6.50
	100.67

IV. Wheat flour branded "Excelsior," manufactured expressly for Messrs. Lay & Craft, Albany, N. Y.—From extra pure Genessee wheat, Rochester, N. Y.—[From Messrs. Lay & Craft, Albany, N. Y.]

Water	12.40
Gluten	11.46
Starch	70.20
Glucose, dextrine, &c	5.20
	99.26

OHIO.

VIII Extra pastry flour, manufactured by Beaumont & Hollingsworth, Zanesville. [From Messrs. Lay & Craft, Albany, New York.]

Water	12.85
Gluten	14.25
Starch	67.06
Glucose, dextrine, &c	5.98
	100.14

This is a remarkable sample, the gluten being not only

* It is to be understood that the gluten is of good quality, unless otherwise stated.

in large proportion, but of a very fine quality. I regret that I have been unable to obtain any information in regard to the variety of wheat from which the flour was manufactured. If grown in Ohio it must have been the produce of a very rich soil.

X. Wheat flour, branded "Empire Mills, Roscoe, O." [From Messrs. Reed & Rawls, Albany, N. Y.]

Water	13.00
Gluten	10.00
Starch	70.20
Glucose, dextrine, &c	6.80
	100.00

The gluten was of a good quality, but in smaller proportion than in the Ohio samples. The flour was very finely ground, which may, in part account for the difference.

XI. Wheat flour, from cargo shipped on board Venice, Venice Mills, Xenia, Ohio. [From the Collector at Buffalo, New York.]

Water	12.36
Gluten	12.60
Starch, glucose, dextrine, &c., (by diff.)	75.04
	100.00

INDIANA.

XIII. Flour from Indiana wheat (1847.) Branded 'Forrest Mills, (Logansport,) extra-superfine, W. Beach.' (From Albany, New York.)

Water	13.00
Gluten	7.00
Starch	67.80
Glucose, dextrine, &c	11.30
	99.10

This sample was sour, and I was informed that it was in this condition when it arrived at Albany early in the spring of 1848. As it was probably ground during the previous autumn, and had not therefore been exposed to summer heat, it must have been put in barrels without due attention to its dryness. The gluten was not only reduced in quantity, but had entirely lost its elasticity, breaking up, during the washing, into shreds which were removed from the linen cloth. A portion of the soluble part, placed under glucose and dextrine, was probably lactic acid, to which the acidity is to be ascribed. The loss which occurred upon this cargo of flour might have been saved by the employment of the kiln-drying process previously noticed.

XIV. Wheat flour, from a cargo shipped on board the schooner Amelia, from Delhi, Indiana. (From the collector at Buffalo, New York.)

Water	11.78
Gluten	11.30
Starch, glucose, dextrine, &c., (by diff.)	76.37
Bran*	0 55
	100.00

ILLINOIS.

XV. Wheat flour, branded "Oswego flour," but said to have been ground from Chicago wheat. (From Messrs. Reed & Rawls, Albany, New York.)

Water	12.90
Gluten	11.25
Starch	66.00
Glucose, dextrine, &c	8.60
Bran	1.25
	100.00

This flour was of a dark color, and said to be scarcely fit to pass inspection. But the gluten was of an excellent quality, and its proportion was above the average of the western samples. I attribute this partly to the very fact which rendered it doubtful to the inspector, viz: its being coarsely ground, and thus containing a larger proportion of the whole meal.

HOLLAND, RUSSIA, AND POLAND.

One sample of wheat flour, and sundry boxes of wheat from Holland, Russia, and Poland, were received from P. A. Bundten, broker, Amsterdam. They were all in excellent condition, but I regret that the time when the wheat was harvested was not added. I infer from my analyses, perhaps incorrectly, that all other things being equal, wheat is more liable to suffer a diminution in the quantity of gluten than wheat flour. I shall hereafter pursue this point in reference to our American samples, as it seems to me to be of great practical importance.

The specimens of wheat were all carefully ground in a hand mill, and then passed through the finest bolting cloth. The flour thus obtained usually had from one to one and a half per cent. of bran; but, as I supposed this to be owing to the mode of grinding, &c., which I was obliged to employ, the amount was deducted, and the calculations of the proportions of the other constituents made accordingly.

XXVI. Flour from Zealand wheat (received in the form of flour.)

Water,	13.30
Gluten,	12.50
Starch,	67.50
Glucose, dextrine, &c	6.20
Bran	0.50
	100.00

This flour was coarsely ground, but it was of an excellent quality.

XXVII. Flour from Poland wheat.

Water	13.60
Gluten	10.65
Starch	68.15
Glucose, dextrine, &c	7.60
	100.00

XXVIII. Flour from Zealand wheat.

Water	13.40
Gluten	10.25
Starch	69.65
Glucose, dextrine, &c	6.70
	100.00

XXIX. Flour from soft Petersburg wheat.

Water	13.20
Gluten	11.00
Starch	69.00
Glucose, dextrine, &c	6.80
	100.00

This is a red wheat, with a very small berry. The gluten is sufficiently elastic, but of a very dark color.—An inferior variety, and one which would be little valued in this country.

XXX. Flour from Friesland wheat.

Water	13.90
Gluten	10.00
Starch	69.75
Glucose, dextrine, &c	6.10
	99.75

XXXI. Flour from red Poland wheat, imported by Odessa. The first column exhibits the amount of gluten in the flour more coarsely ground than in the second, which was very fine.

	One.	Two.
Water		13.30
Gluten	10.80	9.95
Starch		7.25

* In many cases the quantity of bran was so very small, that I did not think it worth while to institute a separate process for its determination.

Glucose, dextrine, &c.....		9.50
Bran.....	0.90	
		100.00

The gluten was of a good quality, but dark colored when dry.

XXXII. Flour from Kubanka wheat, imported by Russia. I made two analyses, the first of he more coarsely ground flour.

	One.	Two.
Water.....	12.35	
Gluten.....	16.00	14.75
Starch.....	59.65	
Glucose, dextrine, &c.....	9.00	
Bran.....	2.90	1.95
	99.90	

This very remarkable variety of wheat, I suppose to have been grown on the Kuban river in southern Russia. It has a very thick husk and yields a yellowish flour, not unlike maize meal. Pallas describes a variety of Greek or Arnaut wheat sown on the coast of the sea of Azof, which agrees with this very nearly. It "has a large bright yellow grain somewhat transparent, and is, in preference to any other, exported to Turkey and Italy. It yields a yellowish, very savory flour, but is in much request for making maccaroni; it requires, however, a very rich soil."

This wheat seems to me to be worthy of a trial in the United States. If under our culture it should yield the propertion of gluten above stated, it would be of great value. The color of the flour might perhaps be an objection to its use for making bread, but it would answer well for the manufactures of maccaroni and vermicelli.

XXXIII. Flour from Kubanka wheat, imported by Odessa.

Water.....	12.35?
Gluten.....	15.25
Starch, glucose, dextrine, &c	71.10
Bran.....	1.30
	100.00

The wheat and flour of this sample are similar in appearance to the preceding It seems to be equally rich in gluten.

Table exhibiting the composition of various samples of American and foreign Wheat Flour, By LEWIS C. BECK, M. D.

	Kind of Wheat flour.	Wheat.	Gluten.	Starch.	Glucose, Dextrine &c.	Bran.	Total.
I.	From New Brunswick, New Jersey, ...	12.75	10.90	70.20	6.15	....	100.00
II.	From New Brunswick, N. Jersey, (damaged)	12.35	8.31	79.34		....	100.00
III.	From Wheatland, Monroe county, N. York,	13.35	12.82	68.00	6.50	....	100.67
IV.	"Excelsior," from Genesee, wheat, N. Y,..	12.40	11.46	70.20	5.20	....	99.26
V.	From Julian Mills, New York,.....	12.50	11.75	70.10	5.50	....	99.85
VI.	From Lake Mills, New York,.....	13.60	12.00	67.60	6.80	....	100.00
VII.	From Granite Mills, New York,.....	13.00	11.90	67.20	6.90	....	99.00
VIII.	Pastry flour, Zanesville, Ohio,.....	12.85	14.25	67.06	5.98	....	100.14
IX.	From Ohio wheat,.....	12.00	11.90	68.57	6.95	....	99.42
X.	From Empire Mills, Roscoe, Ohio,.....	13.00	10.00	70.20	6.80	....	100.00
XI.	From Venice Mills, Ohio,.....	12.36	12.60	76.04		....	100.00
XII.	From Forest Mills, Logansport, Indiana....	12.85	11.85	67.00	8.25	....	100.00
XIII.	From Forest Mills, Indiana, (damaged)	13.00	7.00	67.80	11.30	....	99.10
XIV.	From Delphi, Indiana,.....	11.78	11.30	67.37		0.55	100.00
XV.	From Chicago wheat, Illinois,.....	12.90	11.25	66.00	8.60	1.25	100.00
XVI.	From Rock river, Illinois, ...	13.87	9.90	75.88		0.35	100. 0
XVII.	From Livingston's Mills, Michigan,.....	14.05	10.35	68.35	7.14	....	99.89
XVIII.	From Bruce Mills, Michigan, ...	13.20	11.85	65.60	8.60	0.45	99.70
XIX.	From Monroe, Michigan,.....	13.10	10.40	76.30		0.20	100.00
XX.	From Wisconsin wheat,.....	13.80	10.85	67.00	8.33	....	99.98
XXI.	From Solon Mills, Wisconsin,.....	12.30	10.40	68.50	8.60	....	99.80
XXII.	From Milwaukie, Wisconsin, ...	12.75	9.85	66.02	11.05	0.33	100.00
XXIII.	From Floyd county, Georgia,.....	11.75	14.36	68.93	4.96	....	100.00
XXIV.	From Turk's Island, West Indies, (N. Y.)..	12.60	12.70	66.00	8.50	....	99.80
XXV.	From Turk's Island, West Indies, (Md.)....	12.60	11.90	63.30	11.30	....	99.10
XXVI.	From Zealand Wheat,.....	13.30	12.50	67.50	6.20	0.50	100.00
XXVII.	From Poland Wheat, ...	13.60	10.65	68.15	7.60	....	100.00
XXVIII.	From Zealand Wheat, ...	13.40	10.25	69.65	6.70	....	100.00
XXIX.	From soft Petersbugh wheat,.....	13.20	11.00	69.20	6.80	....	100.00
XXX.	From Friesland wheat, ...	13.90	10.00	69.75	6.10	....	99.70
XXXI.	From red Poland wheat,.....	13.30	9.95	67.25	9.50	....	100.00
——	....Do....do.....(coarser).....	.....	10.80	.....	....	0.90	.....
XXXII.	From Kubanka wheat,.....	12.35	16.00	59.65	9.00	2.90	99.90
——	....Do.....do.....(finer)	.....	14.75	.....	....	1.95	.....
XXXIII.	From Kubanka wheat,.....	12.35	15.25	71.10		1.30	100.00

Hereford Cattle.

Among the various improved breeds of English Cattle, that deserve attention at the hands of the American grazier, none are so little understood and appreciated as the improved Herefords. They are a kindly and hardy race of cattle, feed speedily and at an early age, and may be driven with advantage to market at three years old. Marshall in his celebrated work, gives the following description of them, which will be found tolerably correct.

"The countenance pleasant, cheerful, open; the forehead broad; eye full and lively; horns bright, taper, and spreading; head small, chap lean; neck long and tapering; chest deep; bosom broad, projecting forward; shoulder bone thin, flat no way protuberant in bone, but full and mellow in flesh; chest full; loin broad; hips standing wide, and level with the chine; quarters long and wide in the neck; rump even with the level of the back, and not drooping, nor standing high and sharp above the quarters; tail slender and neatly haired; barrel round and roomy; the carcass throughout deep and well spread; ribs broad, standing flat and close on the outer surface, forming a smooth even barrel, the hidmost large and full of length; round bone small and snug, and not prominet; thigh clean, and regularly tapering; legs upright and short; bone below the knee and hock, small; feet of middle size, flank large; flesh every where mellow, soft, and yielding pleasantly to the touch, especially on the chine and shoulder, and the ribs; hide mellow, supple, of a middle thickness, and loose on the neck and huckle; coat neatly haired, bright and silkey; color most generally a middle red, with a bald face, which latter is characteristic of the Herefordshire breed.

It is doubtless a fact that the Herefords are more hardy in their constitution than the short horns, and also that the beef is more marbled in its appearance, and is also of a much finer texture than that of any other race of cattle known, either in Europe or North America. It has been a disputed point at the great National Fairs of England for the last ten years, whether the Herefords or Durhams were the most profitable stock for grazing and stall feeding; and it yet may be considered an open question so far as the feeding cattle in the British Isles is concerned; but for the northern and middle and eastern States, where the winters are tolerably severe, the Herefords, to our mind, are superior to all others for grazing purposes and stall feeding.

In a communication in the June No. of the American Agriculturist, a Mr. John Drake, a correspondent of the Mark Lane Express, says, "as a proof of the high estimation in which the Herefords are held, he cites to a recent sale of Mr. Tomkins, in which 52 head of grown animals and calves, brought an average of $448 each. One bull (Phœnix) sold for over $2,900. Those sold by Mr. Price in 1841, consisting of 100 bulls, cows, and calves, averaged $260. A cow and a calf sold for $1,15› at auction."

The Hereford cows are not celebrated for the superiority of their milking properties, but as is the case in many portions of Ohio, where the business of grazing and stall feeding is the principal object with the farmer, and the dairy is of only secondary importance, we would advise such of our farmers, to make themselves thoroughly acquainted with the comparative merits of the Hereford breed of cattle, and doubtless after having done so, efficient means will be adopted by agricultural societies, and gentlemen of extensive means and influence, by which they will become generally interspersed throughout the best grazing portions of Ohio and other western states.

Cure of Heaves in Horses.

Pick or gather the buds or sprouts of the white pine, in the spring, say in May, in most parts of the United States. They should be gathered when young and tender, being from four to eight inches long. They can be cured or dried, and are then in readiness at all times. I used from two to three quarts of the buds when green, to about three gallons of water, and let them simmer or boil until I thought their strength was mostly in the liquid. When cool, I gave the horse nearly a quart daily, for ten days, which proved a perfect cure.

The horse was unable to work before administering the above, and at present there is not a better horse in the land for business. The cure was effected in June, 1845.

I further recommend to all persons troubled with pain in the chest or side, to use the above liquid, sweetened with loaf sugar. I have had more benefit from this medicine for pain in the side and brest, than anything I have ever used. JOHN D. SPENCER – *in Albany Cultivator.*

History of the Morgan Horse.

A subscriber reminds us that we have never given an account of the origin or history of the Morgan breed of horses; and he wishes us to supply the omission. This subject was one of much dispute in the eastern agricultural papers a few years ago, and we believe to this day, the history of this breed or variety of horses is not known with certainty. As the substance of what has been discovered, Mr. Allen gives the following:

The original *Morgan Horse*, of Vermont, from which

all are descended, was foaled in Springfield, Mass., in 1793. He was got by True Britton, supposed to have been bred by Gen. Delancey, of New York, and got by imported Wildair, (or one of his sons,) a horse of such distinguished excellence, as to have been re-exported to England, for the benefit of his stock.

The Morgan horse stood in Vermont from 1792 till his death, at an advanced age From him and the choice mares of Vermont, descended many excellent colts; and his merits were inherited in an eminent degree by three of his sons, which stood in the same state and continued the career of improvement commenced by the sire. The result has been the production of a family of roadsters, of much similarity of appearance and uniformity of character, unsurpassed by any others for servicable qualities.

Plank Roads.

This description of roads is rapidly finding favor in this country. Numerous companies were chartered last winter by the Ohio Legislature, and other States have evinced a large amount of zeal in their behalf. They can be built for about one half what it would cost to construct a McAdmized road, and the interest on the original expenditure thus saved, will be found nearly sufficient to renew the plank in periods of seven years.

The first roads constructed on this principle on this continent, were made in upper Canada, and as a matter of history it might not be amiss to here state, that it was resorted to by the Commissioners who had charge of the public roads, in the first instance, as an act of apparent necessity. A portion of the road, under contract to be McAdamized, was composed of a quick sand for many feet in depth, and besides, the land contained numerous durable springs, so that it was entirely impossible to get either unbroken or broken stones to form a substantial road. Planking was resorted to with success, and hence, the business of planking roads, received their origin in this country. and as subsequent events have proved, have been found to possess advantages, where lumber can be had tolerab'y cheap, that cannot in fairness be claimed by any other description of road.

It may be urged by some, that the expense of drawing lumber a great distance,—say five or ten miles, will operate seriously against their general use, as leading roads to our principal market towns. This difficulty may be entirely obviated by the use of Page's portable saw mills, which after 15 years constant trial in the southern states have been found to combine all the advantages of an ordinary steam saw mill, and besides possess the important feature, that they are perfectly portable, and may be transported from one point to another with as much facility as an ordinary eight horse power threshing machine. Those mills may be driven by steam or horse power, and with a ten horse power engine will saw without any difficulty from five to six thousand feet of inch plank per day. Where plank roads are constructed upon a large scale, and ordinary steam or water saw mills are scarce on the line or road, it will be found that Page's saw mills will in most cases reduce the price of lumber at least twenty-five per cent.

The following very excellent and practical remarks on the foregoing subject will doubtless be read at this time with much interest by a very large portion of our subscribers.

Plank Roads.—A plank road from Schenectady to Saratoga Springs is about to be built. A letter from Prof. Gillespie (author of the "Manual of Road-making,") which was read at the recent public meeting in Schenectady and published in the Cabinet, contains much valuable information on this important subject, and from which we extract some passages of general interest in relation to this improvement, the most valuable aid to locomotion since the invention of railroads:

The inland town roads are substitutes for navigable rivers. The more widely they radiate in every direction, and the better their condition, the greater will be the consequent prosperity. Their comparative value is determined by the different weights which a horse can draw upon them at any uniform speed, or by the different speeds at which he can draw the same load. Of all modes of improving their surface, plank roads are the most effectual at the smallest cost. If we take the load drawn on a new gravel road as our standard of comparison, experiments show that on a good broken stone, or Macadam road a horse can draw four times as much, and on a smooth plank road eight times as much, or twice as much as on a good Macadam road.

Plank roads therefore enable a horse to do more than than any other arrangement except railroads. But invaluable as the latter are to the hurrying traveler, the ordinary roads on which every farmer can drive his own team, when not needed for the farm labors, are incomparably more useful to the community at large—and of all such, plank roads are the perfection. They are the farmer's railroad.

Mode of Construction.—The best mode of constructing them is briefly this: Lay out the intended line with great care to avoid steep inclinations, never ascending more than one foot in going thirty or forty, and winding many feet around rather than go up one. Grade the road-bed wide enough for two wagon tracks, but plank only one, and that on the right-hand side coming toward the city, for teams generally come in heavy and go out light, and this arrangement makes the heavy ones keep the track, and the light ones do all the turning out. Lay down flatwise two stringers, twelve by three, four feet apart, center to center. Imbed them well in the earth; across them, at right angles, lay three inch hemlock plank, eight feet long. The lengthwise and skewing methods of laying them are now abandoned. Pack the earth well upon them; slope the earth track towards ditches (which should be wide and deep) and your plank road is made.

Many minor points must, however, be attended to in making your roads as perfect as possible. The inner stringers should be higher than the outer ones, so as to carry the water off freely. They should be in two pieces, each six by three so as to break joints. The end of the planks should not be laid to a line, but project a few inches on each side alternately so as to make it easy for wheels to go on the track, and to avoid forming a rut alongside. They need not be fastened down, but I would recommend spiking down, say every fifth or tenth plank, the rest being well driven home against these. The stringers are now made heavier than formerly and the plank lighter. When hemlock planks get worn down two inches, the knots project so as to make the road too rough, and to require renewal. Allow one inch more to hold them in, and we have three inches thickness. Hemlock is generally used, as cheapest, but pine or oak would be better.

A single track will be sufficient for almost any amount of travel. The turnings out upon the earth road by the side of it are at such varied points, that its surface, if made properly crowning, will always remain in good condition. 160,000 teams passed over a Syracuse road in two years, averaging more than 200 a day; and for three days in succession 700 a day passed over it, and all this was on a single track.

Cost.—The cost of the road will of course vary with the price of lumber. On the plan recommended it will require 127,000 feet of plank, and 32,000 feet of stringers per mile, in all, say 160,000 feet board measure.—Other items of cost are levelling the road-bed and laying

the plank, which cost from 50 cents to $1 per rod. The excavations and embankments necessary to give the road proper grades, and the bridges and sluices cannot be estimated without the data of a survey. Omitting these, as also gate houses, we will have the following rough estimate of cost per mile:

Lumber, 160,000 feet, at $9 per M.....	$1,440
Levelling and laying at 75 cents per rod.....	240
Engineering and superintendance	100
In all.....	$1,780
Add, for contingencies, 10 per cent.....	178
Total.....	$1,958

Or say $2,000 per mile, with lumber at $9, and omitting extra excavations and embankments and gate-houses. The difference of $1 per M. in the price of lumber makes a difference of $160 per mile.

Duration.—As to durability, seven years for hemlock would be a safe estimate, though our experience is as yet very limited. One set of stringers will out-last two or three coverings of plank. But, to be profitable, the plank must have so much travel as to wear them out before they rot out. The wear and tear of the first year equals that of the following six, as a tough elastic coating of woody fibres is soon formed, and protects the plank from wear. And the sooner they wear out the better, for the sooner will their cost be repaid. On one road, the passage of 160,000 teams wore the plank but one inch.

Profits.—Before hemlock plank have been worn out, they will earn to the rate of tolls established by the general plank road law from $2,500 to $3,000 per mile above repairs and expenses, or double their original cost, which they will thus reimburse, and leave as much more for dividends, which will of course be more or less large, according to the wearing out or concomitant earning is done in a shorter or longer time. On the Syracuse and Central Square Plank road, the tolls on eight miles for two years, ending last July, were $12,900; the expenses of salaries and repairs were $1,500, leaving $11,400. The planks were half worn out (one inch), so that their net profits before renewal would be $22,800 for the eight miles, or $2,850 per mile.

Advantages.—In improvements of this character it is difficult to say who gains the most—whether it is the stockholder, the farmer, the city merchant, or the consumer of the produce brought in. The *farmer* can bring his potatoes, apples, grain, pork, wood, &c., to market at seasons when he would otherwise be imprisoned at home by the state of the road, and could not there work to advantage. He could also carry twice as heavy a load as ever before and therefore at half the former cost. He could therefore sell cheaper and yet make higher profits. The *consumer* would consequently get the articles that he uses at lower prices. Wood, for example, would be greatly lowered in cost by being brought from distant forests, now inaccessible to us. So with other articles.—Every inhabitant would therefore be benefitted, for every one must be warmed and fed. The *merchant* will find his old country customers and many new ones coming at all times, and will share their large profits. The *stockholder*, besides his gains as a member of one of these three classes, of producer, merchant or customer, will in addition, receive his dividends from tolls. It is one of those rare business transactions by which all parties gain.

M. Gillespie.

Spaying Cows and Heifers.

Eds. Cultivator—In answer to your correspondent who asks for information in regard to spaying cows, I would say that I have practiced it for twenty-five years, and think I can judge with tolerable correctness as to the benefits of the operation.

A spayed cow will give more milk in a year than when she went dry thirty sixty, or ninety days; and she is ready to fatten at any time, and will take on fat much more readily than those cows that are dried and fattened in the usual way. I have followed the practice—(and so did my father before me)—of spaying cows in the spring, and milk them two or three years, or as long as I please—without the trouble that is had with those that are not spayed. When fatted, the quality of the beef is superior to that of any ox or steer, and brings a higher price in market. In the town or city, where milk is the object, the spayed cow may, as you say, "continue in milk indefinitely as to time."

As to the operation, it is difficult to give such a description on paper, as would enable the farmer to perform it successfully; and so it would be in regard to describing the amputation of a limb, or the dissection of any part of the body. I can only say, that spaying can be performed without any particular risk.

It is important that the farmer should know what his cow is best fitted for. If she is inclined to get fat with good feeding, I would not say spay her for the purpose of *milking*, but would do it for the purpose of *fattening* her. But on the other hand, if the object is milk, and the cow is a good milker, spay her and keep her in milk. I have milked them from one to six years; and in the counties of Ontario, Livingston and Genesee, I have operated on hundreds from six weeks to eighteen years old.

Reference can be given to those who have milked spayed cows for several years, have worked spayed heifers, and have raised and fattened them from calves, and all speak in high terms of the benefit of the operation, when well performed, Wm. Carter. *East Bloomfield, Ontario Co., N. Y.*

Note.—It may be well to add to the above, the conclusions of M. Morin, veterinary surgeon at one of the French Royal Depots. He furnishes a long article for a French journal, which is summed up as follows:

1. Spaying induces permanency of milk, increase of quantity, and improvement of quality; richer, more buttery, superior color, finer taste and flavor.

2. The most suitable age is six years, and after the third or fourth calf.

3. The spayed cow fattens more easily, and furnishes beef of a better quality.

4. Cows that are bad breeders may be kept as good milkers, and the quality of good cattle kept up.—*Alb. Cult.*

Wool Grower's Convention, &c.

A Convention of Wool Growers, was held in Washington, Pa., on the 22d ult. Richardson Donaldson, Esq., President. The following resolutions were passed:—

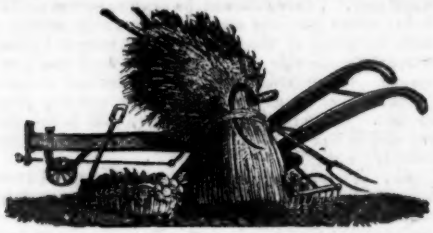
"*Resolved*, That it is the opinion of this Convention, that the depot system, if generally adopted, would be highly beneficial to wool growers and manufacturers, inasmuch as it would be the most equitable mode of disposing of wool, as well as the least expensive mode of collecting and conveying it from the producer to the manufacturer.

Resolved, That a committee of ten be appointed to ascertain whether funds can be obtained from the Franklin Bank of Washington, to make partial advances in wool, which may be deposited in the contemplated depot, and if so, to call a meeting immediately, for the purpose of making arrangements for establishing a Wool Depot at Washington.

Resolved, That if funds cannot thus be procured, said committee are hereby instructed to take the proper preparatory steps for establishing a Savings Institution, which would furnish capital for that purpose.

Resolved, That said committee call a meeting as early as practicable, to which they may report the result of their operations.

Resolved, That this Convention recommend to the farmers of this region of country, the promotion of Woolen Manufactories on the great thoroughfares of Western Commerce, as the best mode of advancing the interests of Wool Growers, and the whole community."



OHIO CULTIVATOR.

COLUMBUS, OHIO, JUNE 15, 1849.

State Board of Agriculture.

The Meeting of the Board, appointed to be held at Cincinnati on the 20th inst, we feel authorized to state, will not take place at that time. Special notice will be sent to each member, when the time and place of meeting are agreed on.

We repeat the request that members of the Board who do not expect to be present at the meeting, will send a list of names of suitable persons from their districts, to serve as judges at the Fair.

The cholera continues to prevail to some extent in Cincinnati, but there is reason to hope it will disappear in the course of a month or two. Should it continue until the 1st of September, we suppose the Fair will be postponed till next year. At the present time (June 13th,) we believe the disease does not exist as an epidemic in any other place in Ohio, than Cincinnati. At New York and Boston, the reports are of about the same character as at Cincinnati—showing a mild form of the disease compared with former visitations.

Mr. Bateham has returned from his trip north. He was detained several days on business at Cleveland, and consequently had not time to visit many of his friends along the way. His health is somewhat improved. He expects to be absent again much of the time for a few weeks to come. Letters and other business of the office will be attended to as far as possible, in the mean time, by an assistant.

The Crops--Fruit Prospects.

In our recent tour, we passed through ten or more counties, embracing portions of the best wheat districts of the State. The wheat crop promises quite fair on the whole—indeed, taking the State at large we think the yield will be above the average—although very many fields on close inspection are found to be quite uneaven and thin, owing to injury by the winter. We did not learn of much damage by the fly. In the eastern counties, we are informed, some injury has been sustained from this cause. Our letters from the south-western part of the State speak favorably of the wheat and other crops. A friend who has just returned from a tour in the north-western counties and in Indiana, represents the appearance of the crops as highly favorable—excepting *corn*, which is backward, and many fields badly injured by the cut worm. The same is true of this crop in all parts that we have visited; but the farmers had replanted promptly where destroyed, and the recent warm rains will give a rapid growth, so that no fears need be apprehended of a failure of this very reliable staple. Oats and grass had been checked some by dry weather, but will now improve rapidly. Potatoes have started fairly, and where planted early may be expected to yield a good crop.

The Fruit prospects throughout the central and northern parts of the State are quite favorable. Peaches promise an abundant yield—though in some parts the curculio has attacked them badly. Plums and cherries nearly all destroyed by late frosts and the curculio. Apples promise a fair, but not heavy crop.

In the southern parts of the State we learn there will be a very few peaches in some locations. Plums and cherries, none to speak of. Apples a very light crop.—Grapes, a fair crop.

Some notes of travel, and a glance at horticultural matters around Cleveland, are crowded out of this number of our paper.

The Columbus Horticultural Society, has been re-organized under a charter granted by the Legislature.—Its meetings are held every Saturday evening, for the inspection of fruits, flowers, &c.

Strawberries.—Mr. T. B. Tillinghart from near Chillicothe, brought a wagon load of fine strawberries to our market a couple of weeks ago, (May 30th) and sold them at from 15 to 25 cts. per quart. Owing to dry weather during the first ten days of June, our market has not been well supplied with this fruit.

The Report on Grain and Flour, contained in this number of our paper, we regard as a most important document, affecting the greatest export staple of our country. We trust therefore, our readers who may not feel direct interest in it, will excuse the space it occupies.

☞ Several communications have been deferred, owing to the absence of the editor.

The Horticulturist.—The third volume of this very popular and useful work is just completed. A new volume commences next month (July.) This affords a favorable opportunity for new subscriptions, and it will give us pleasure to remit names and payment for any of our friends in this vicinity who desire it. Those at a distance can remit by mail—$3 per year for a single copy; two copies for $5. Address Luther Tucker, Albany, New York.

"The Plow, the Loom and the Anvil, also commences a new volume with the coming month; and we hope the occasion will bring a large accession of subscribers. Price same as foregoing. Address J. S. Skinner & Son, Philadelphia.

Popular Works.—Mr. C. C. Bennett, the agent has left on our table specimen copies of "Littell's Living Age" and "The American Flora." The latter is a beautiful and instructtve work, illustrated with colored plates. It is edited by Dr. A B. Strong, New York, and gives the

medical or other uses of plants, as well as the botanical description, mode of culture, &c. Published monthly, $3 per year.

"The Home Journal.—The first number of a *New Series* of this widely-circulated and universally popular family newspaper, will, for the accommodation of new subscribers, be issued on Saturday, *the seventh day of July next*, with several new, original and attractive features.—The home journal is wholly a peculiar paper, abounding in every variety of Literature and News; and, besides being one of the most elegatly printed and interesting sheets extant, it is *by far the cheapest*—the terms being only Two Dollars a Year (in advance) or three copies for five dollars.

☞ *Now is the time to subscribe.* Address Morris & Willis, Editors and Proprietors, at the Office of Publication, No. 107 Fulton street, New York."

Crops in Greene Co. O.—Our wheat crop is now in head, and promises well—the drilled fields, of which we have quite a number, appear at least 25 per cent better than those sown broad cast. Grass looks well Corn is backward and has suffered greatly by the cut worm, especially on clover sod. J. C. G.

June 5th, 1849.

Correction.—In last number of the Cultivator, remarks on drilling wheat, p. 170, 1st col. 6th line from top, for "winter" read *interem.*

The Locusts Have Come.

"Locust Year.—A short time ago we copied from the Western Star, a statement to the effect that the seventeen year Locusts might be looked for this year, in portions of Eastern Ohio and Western Pennsylvania and Virginia, where they appeared in the year 1832, seventeen years ago, and seventeen years before that time, in 1815. The *Star* gave this as the opinion of persons who had studied the history of this insect.

"Already the suggestion is being verified. The Pittsburgh Gazette of the 4th inst. states that the insect has appeared in that vicinity in vast numbers. The ground, it says, in woods, orchards, and gardens, is perforated with countless holes, from which they have emerged to the light of day, and the trees, fences, &c., are covered with the skins which they have shed. By examining the trees, they are found in immense numbers, about half grown and very active.—*Cin. Gazette.*

Our readers will remember that it was stated in the Ohio Cultivator of July 15, *last year*, that the locusts might be expected this year in the destricts above named. We presume the *Star* editor forgot to give us credit for the suggestion.

We wish our friends would inform us in regard to the extent of their appearance in this State at the prusent time.

Much interesting information in regard to these singular insects may be found in the volume of our paper for 1846, during which year they appeared throughout many parts of Ohio.

Ohio Deaf and Dumb Asylum.

The Superintendent publishes the following card which we commend to public attention:

The next annual session of the Ohio Deaf and Dumb Asylum, will commence on the first day of October next, at which time it is hoped all who design entering the school may be punctual in their attendance. The benefits which the deaf and dumb derive from the educational advantages which the State of Ohio has here provided for them so munificently; are very great, and it is highly important that they all should participate in them, and the attention of parents and friends, and the kind co-operation of the benevolent and the humane is particularly invited to this subject; as it has been ascertained by long observation, that without special efforts, a large number of the deaf and dumb never enter schools for education, but live and die unblest by their advantages, and entirely unconscious of mental, moral and religious light, which so distinguishes this age.

It might be added that the best age for new pupils is twelve, but we receive them between the ages of ten and twenty, and in some instances when they are over that age.

Address H. N. Hubbell, Columbus.

Kinderhook Wool Depot.

This is the oldest wool depot in this country—established by Mr. H. Blanchard, and has constantly increased in its business since its establishment. The advantages of the Depot system is now well understood by those who have given attention to it—and the quantity of wool from the flock masters we understand, is fast increasing. Mr. Blanchard has associated with him, T. M. Burt, Esq., who is recommended as a gentleman every way capable to aid in this establishment, and we have assurances that the same care and attention which has hitherto proved so satisfactory will be continued. The gentlemen who are referred to in the advertisement, by the proprietors, are all well known, and give assurance that the establishment will be so conducted as to prove useful both to the wool grower and the manufacturer.

See advertisement in this No.

Bee Management--Millers, &c.

Friend Bateham:—It is four or five years since bees first arrested my attention; since then, I have endeavored to find a remedy for the moth; believeing that the worm constituted the greatest impediment to the raising of bees, but am now satisfied that it offers but little, if any, opposition to the successful raising of bees.

Keep one Queen bee in the hive and there is no doubt but they will prosper.

In the fall of 1847 one of my hives showed signs of decay—every movement indicated the presence of worms. They continued in this languishing condition till the spring following, when it became evident that they were entirely swamped with worms. I concluded to drive the bees into a small box that had some empty comb in it, left by bees the fall before. After some difficulty I succeeded, and on examining the old hive found it full of comb, bee bread, honey, and worms—pretty thoroughly mixed. The whole blame of course was laid on the worms. The bees, however, worked in their little box very moderately, as it hope was a long ways below par. Their number seemed to diminish regularly, not more than two quarts when put into the box, was soon reduced to one half that quantity; still they had made some honey.

While looking on the tardy movements of the bees in this little box, it occurred to me that they might need a queen; I picked up an extra one about the mouth of another hive and put it in with these disconsolate bees, and in a very short time the aspect of the hive was completely changed.

Their comb had become well supplied with worms—they commenced immediately to cut down all the comb that had any worms in it, and the infected comb with the worms was soon expelled. Hope seemed to revive, the prospects to brighten, and an industrious colony was the result. Young bees soon appeared and the worms disturbed them no more.

It is likely that old hives often standing many years without any change of comb, lose their vigor, owing to

the fact that the cells are not adapted to the raising of good bees.

One thing is certain, if bees from any cause, should lose their queen, and not have the means in their power of raising another, the miller and the worms soon take possession.

I believe no hive is destroyed by worms while an efficient queen remains in it.

Micajah T. Johnson.

Short-Creek, Harrison co., O., 14th of 5th mo., '49.

Houses of Unburnt Brick.

Within the last five or six years, this style of buildings has been pretty extensively introduced into the western states, especially in Illinois and Iowa Houses constructed of this material were supposed to combine many advantages that were possessed by no other mode of erecting walls, and consequently there were many enthusiasts found who fancied they would ultimately supercede all other description of buildings for farm houses, and out houses for horses, cows, &c. In South America, Mexico, and in many countries on the continent of Europe, unburnt bricks have been employed in the construction of walls for houses, for a very long period of time, and it has been found that when pains were taken in the preparation of the material for the walls, they would successfully withstand the greatest severity of wet and cold for many generations. Walls of this description should not be raised higher than one story, and should be built upon a stone wall, raised at least thirty inches above the surface of the ground, and should either be protected by a widely projected roof or a varandah. The stucco or plastering should not be laid on the outside of the wall until it has had time to settle, and become perfectly dry. If the walls are built in the spring, the plastering might be put on in the following autumn; but it has been found best in most cases to delay the plastering until a twelve month from the period of the erection of the building. Sand of the coarsest and sharpest quality should be procured, for the preparation of the mortar, and only a sufficient quantity of fresh slacked lime to firmly set the sand, should be employed in making the first coat, which if put on in the month of October or when the weather is moderately warm, will be perfectly from cracks, and by the aid of a second coat of plastering will prove in most cases impervious to water for a very long period of time.

Unburnt brick walls are admirably adapted for stables, and other out buildings, but where stone can be conveniently procured, the latter should be preferred, as it is obvious they will make the most durable wall.

The following very practical remarks from the Prairie Farmer, on the subject, may be found interesting to portion of our readers.

When this mode of building dwellings for our wet and cold climate of the North was proposed, some five or six years ago, we had very little faith in it. But when, at a later period, the opportunity was offered, of examining houses so constructed, our opinion was modified considerably; and we have long been convinced that dwellings, of peculiar construction as to form, might be made of unburnt bricks, which would greatly reduce the cost of building, and would possess several excellencies over those of any other construction.

There is no doubt, however, that attention must be paid to the form of the building when constructed of this material. A two story house, with close Grecian cornice is not a fitting shape for it. Water and frosts together have too convenient access to the walls, and will be pretty sure to act upon them, especially if the house should be provided with no spouts to carry off the roof water; nor, should these be added, would the matter be much mended.

The proper form of a house to be built of unburnt brick, is that of one story, or perhaps story and a half cottages; with a wall from twelve to fifteen feet high, with sharp roof and largely projecting eaves, so as to throw off all water from the walls and preserve them dry. If a good high stone fundation is laid, there need be no difficulty—these preliminaries being adhered to—in securing a good house.

The last number of Ranlett's Architect contains some valuable hints as to detail in constructing of this material. The size of the bricks may be 6 x 12 x 18 or 9 x 12 x 18 or 12 x 12. The second size will be found quite heavy to handle. In laying up the bricks we should prefer lime mortar to that made of clay. It will aid in causing the covering cement to adhere. But hear Mr. Ranlett.

"Any soil will be found suitable for making bricks to be dried in the sun, except sand or gravel, and can usually be obtained in making the excavation for the cellar of a house. A proportion of two parts clay or loam, to one of sand or fine gravel, and of straw, about 100 lbs., cut in lengths of five or six inches to 350 bricks; the clay should be removed to a level spot, and mixed by treading with oxen or horses, which can be done in two or three hours. A better material even than straw, to mix with the clay, when it can be obtained, is salt hay, on account of its toughness and durability. We have seen it used in mixing mortar in place of hair.

"The moulds for the bricks should be made of boards, strongly fastened at the corners, and holes bored in the bottom to facilitate the discharge of the brick; when placed to dry, the bricks should be laid upon their sides, and dry sand sprinkled upon them to prevent them from cracking in the sun; in two or three days turn them upon the edge, and let them remain three or five days, according to the power of the sun, when they should be piled up so as to admit of a free circulation of air, and protected from the rain. In two weeks they will be fit for use. If a cellar is to be made the wall should be of stone, and two feet of the top laid of lime mortar or cement; the latter would prevent dampness. In laying the bricks, clay mortar may be used, but mortar of lime and sand would do better. The roof should in all cases, project from two to four feet, according to the height of the building. If one or two full stories, the roof may be flat, but if a story and a half it must be high to relieve the lateral pressure on the walls. The coating or plastering on the outside of the walls should be of the best description; it may be made of equal parts of lime, ashes, sand, and clay, and thoroughly mixed with water, having a strong infusion of glauber salts."

The Wealth of the West.

The value of maize or Indian corn as a crop is incalculable, or rather is of such magnitude, that no adequate idea can be conveyed of its importance by figures. I shall endeavor to furnish some notion of its value by a few simple facts.

In Illinois, which is extensively a corn raising State,

"The kind mostly cultivated is the gourd seed, with long kernel and small cob, giving a bushel of shelled corn to a bushel and a half of ears. It grows frequently fourteen feet and higher, and in good seasons, large fields often produce seventy-five bushels and over to the acre.

"Allowing a fair estimate for fencing, interest, &c., and prairie farmers calculate their corn costs them, when ripe, standing in the fields, five to six cents per bushel. The labor of one hand is considered adequate to the culture of forty acres; but allow that he is a little lazy, which is a prevalent complaint, and works only thirty acres; then if he raises 1,500 bushels, it costs only four cents.

"The ears droop, so that the husk is a perfect protection, and it is harvested in the autumn or winter at the farmer's convenience—or when the time comes to fatten

hogs, he fences off a few acres and lets them harvest for themselves, and then gives them a few acres more."

At the rate here referred to, fattened hogs cost the farmer *sixty-seven* cents, and beef cattle fifty cents per hundred pounds, both of the best quality. What its profits actually are, may be inferred from the fact that he ordinarily gets three times those rates for these articles which he considers equal to twelve and a half cents per bushel for corn. When railroads shall take his pork and beef to market they will be worth three dollars, at the lowest figure. What a mine of wealth is here!

A correspondent of the Richmond Enquirer writing from Chicago says:

"In the summer of 1845 I was on one of the largest farms of the West. It belongs to Jacob Strawn, of Morgan county, in this State, and contains over 8,000 acres, all fenced and improved. His profits, the year before, had been over $20,000, made chiefly on fat cattle and pork, yet he says that all the profits he asks for, in his farming operations, is to make the corn, which he raises himself, bring him twelve and a half cents per bushel on his farm. That is, he is willing to be at all the trouble of raising and fattening droves of cattle and hogs without profit on them, in consideration of the money he makes by marketing his corn in that way, and getting for it but twelve and a half cents a bushel."

It would seem superfluous to add any thing more on this subject. But in fact, all that has been thus far stated, is but its threshold. I will just suggest two views, which if correct, and I do not see how they can be disputed, will serve to show that the great West must become the richest country on the face of the earth.

It is abundantly demonstrable that a railroad to the Pacific, will forever put Indian corn at a minimum of thirty cents per bushel in any part of Illinois. Indeed I am not sure that a railroad to the Atlantic cities will not accomplish the same result. Another fact. It will be seen in another article to this day's Advertiser that in the comparatively cold and sterile region of Northern Pennsylvania, close farming has produced a yield of one hundred and twenty bushels of corn to the acre, by an individual who believes he will be eventually able to raise one hundred and sixty bushels per acre. What has been done in Pennsylvania, can be more readily done in Illinois, when high prices shall stimulate the effort.—*Cist's. Cin. Adv.*

Dairy Business.

Our northern friends must look sharply to their cows, their pastures, meadows, root, corn and other forage crops; for Virginia, North Carolina, Georgia, and Tennessee are already in the field as competitors in the dairy business.—There is not a State in the Union in which both cheese and butter can not be made. Like all other arts, that of rearing good milkers, keeping them well and cheaply, and at the same time manufacturing choice butter and cheese for market, demands experience, care and study. The operation is mainly performed in those seasons of the year, when all animal substances, like milk, whey, butterwilk, and curd, are extremely liable to chemical changes which injure the products of the dairyman. Only a small portion of the butter and cheese made in the United States is really first rate. And why not? The milk is good when drawn from the udder, but it is badly handled ever after. Less attention is paid to keeping milk pails, pans, churns, cheese tubs or vats, perfectly sweet and clean than is required to secure the best results. Butter when taken from the churn is not properly worked over; nor salted with pure salt; nor protected from the influence of atmospheric air, as it should be. The germ of that peculiar change, known by the common name of "frowy," is early planted in the mass of butter, although undeveloped for weeks or months.

Butter and cheese which are put up wrong, if kept any time, will never come out right. The changes which they undergo present a subject for close and curious study.—As in curing meat, good salt, pure air, and the entire exclusion of oxygen from butter in kegs, and cheese in a well oiled, impervious rind, are the leading matters to be attended to. In cheese-making, the heating of the milk, the condition of the rennet, the quantity used, and the quantity of salt, the degree of pressure on the curd, the time for it to be in press, the turning of cheese, surrounding with cloth, &c., &c., are all details of great importance. To incorporate into the cheese all the casein (curd) and butter which the milk contained, and preserve both sweet and delicious with aroma, peculiar to each, are the objects to be attained. Keeping milk too long, bad skins, using too much rennet, too much scalding, impure salt, excessive pressing, neglect in turning and oiling, and an offensive atmosphere in the dairy room, are among the most common causes which injure cheese.

Butter is damaged by permitting cream or milk to stand too long before churning; by the defective working out of the buttermilk; bad salt; and too long exposure to the atmosphere before it is placed down in crocks or tubs. Keep the air from your butter as much as practicable.—*Genesee Farmer.*

Sugar for Preserving Butter.

A great deal has been written on preservatives for butter. Some writers say, if the buttermilk is wholly separated from the butter, that no preservative is necessary, as pure butter will keep well without any addition. Yet very few ever attempt to keep butter without the aid of some preservative; and most persons prefer butter slightly salted, and some would have it sugared also. We have known a few individuals who preferred butter without salt, and at each churning a little has been kept pure for their special use.

Some persons say that salt is the only proper preservative of butter, as other substances, such as sugar, saltpetre, &c., are injurious to the quality. Now, this reminds us of those dictatorial individuals who would make their taste a standard, though it is at variance with that of the majority of consumers. One pomologist says that a vinous-flavored peach is the best, and that a pear of a champaigne quality should be preferred, while the majority of mankind are in favor of sweet, lucious fruits. One person prefers tea, another coffee, and a third would like something a little more vinous or spiritous.

How absurd, then, when tastes are so different, for any one to assume the authority of judging for himself and for others too! Salt is used in butter both for the purpose of preservation and to render it more palatable.—But for the long keeping, twice as much salt is used as is necessary to adapt it to the taste of consumers generally. This is evident from the small quantity of salt in lump butter, which usually sells high in market, while tub butter, equally as good, excepting the larger quantity of salt, generally sells twenty-five per cent. lower.

As the large quantity of salt, used for preservation, is injurious, as to taste, why should we not use a suitable quantity of salt for taste, and add sugar as a further preservative? For our use, we prefer butter and meat preserved, in part, by sugar, instead of using salt wholly, and using for preservation twice as much as would render it palatable. Butter and meat, preserved partially by sugar, are more healthful, as well as palatable.—*New England Farmer.*

We copy the following article from the Pennsylvania Cultivator, on the same subject:

Sugar-Curing of Butter.—Persons who put up keg butter for their own use, or for a distant market, usually salt their butter very high. This high salting necessarily detracts from its quality, injures its ready sale, and reduces its price. If we can modify this excess of salt, by using more palatable substances, of equal efficacy, as preservatives, it will be an improvement. Chemists tell us that sugar is one of these substances; and experience gives us the same information. Who is not familiar with "sugar-cured hams"? If pork can be cured with sugar, why may not butter be so preserved also? is a common sense inquiry. Experience has shown that it may. Dr. James Anderson, the celebrated agriculturist, whose trea-

tise "On the Management of the Dairy, particularly with Respect to the Making and Curing of Butter," is still our highest and best authority on the subject, found, from some years' trial of it, that the following named composition—the properties of which we believe were discovered by his amiable lady—was far preferable to salt alone, as it not only preserves the butter more effectually from all taint of rancidity, but makes it also look better, and taste sweeter, richer, and more marrowy, than portions of the same butter cured with common salt:—

Composition.—Take of sugar, one part; of nitre, one part; and of the best Spanish great salt, (or rock salt,) two parts. Beat the whole into a fine powder, mix them well together, and put them by for use. The doctor continues:—

"Of this composition one ounce should be put to every sixteen ounces of butter; mix this salt thoroughly with the butter as soon as it has been freed from the milk, and put it, without loss of time, down into the vessel prepared to receive it, pressing it so close as to leave no air-holes, or any kind of cavities within it. Smooth the surface, and if you expect that it will be above a day or two before you can add more, cover it up close with a piece of clean linen, and above that a piece of wetted parchment, or for want of that, fine linen that has been dipped in melted butter, that is exactly fitted to the edges of the vessel all round, so as to exclude the air as much as possible, without the assistance of any watery brine: when more butter is to be added, these coverings are to be taken off, and the butter applied close above the former, pressing it down and smoothing it as before; and so on till the vessel be full. When it is quite full, let the two covers be spread over it with the greatest care, and let a little melted butter be poured all round the edges, so as to fill up every cranny, and effectually exclude the air. A little salt may be then strewed over the whole, and the cover be firmly fixed down, to remain close shut till it be opened for use. If all this be carefully done, the butter may be kept perfectly sound in this climate for many years. How many years I cannot tell; but I have seen it two years old, and in every respect as sweet and sound as when it was only a month old.

"It deserves to be remarked, that butter cured in this manner does not taste well till it has stood at least a fortnight after being salted; but after that period is elapsed, it eats with a rich, marrowy taste that no other butter ever acquires; and it tastes so little of salt, that a person who has been accustomed to eat butter cured with common salt only, would not imagine it had got one fourth part of the salt that would be necessary to preserve it."

It is to be hoped some of our farmers, on reading the above, will follow its recommendations. The composition mentioned is, we have understood, much used in Goshen, Orange county, New-York, a place famous for its superb butter. Great care should be taken to get the purest salt and sugar. That known through the country as the 'ground alum" is the best salt. The sugar should be of the purest white—either the loaf or "fallen loaf." Those excellent butter-makers in the glades of the Alleghanies, would do well to make some experiments for themselves, in this matter.

Special Manures for Vegetables.

Two or three correspondents, since the publication of our remarks on manures for fruit trees, have expressed a wish for more light regarding the chemical composition of some of the leading vegetables.

They complain of the great difficulty of growing certain kinds of vegetables—beans, for example—in small gardens were the soil has been cultivated a long time, and where, from not being able to change such crops to new soil they fail in growing them, notwithstanding a liberal supply of animal manure.

What these vegetables want is a supply of *mineral manures*, and in order to know how to apply these most judiciously, our readers must know something of the chemical composition of each vegetable. We therefore give the following abstract of the inorganic elements which enter most largely into the composition of such vegetables. It is from the analysis of the ashes of these plants by De Saussure, Sprengel, and other chemists:

	Potash.	Soda.	Magnisia.	Lime.	Phosphoric acid.	Sulphuric acid.	Silica.
Peas,	35.	10.	6.	3.	34.	4.	1.
Beans,	38.	11.	9.	5.	31.	2.	0.
Celery,	22.	0	5.	13.	15.	5.	3.
Onions, (bulb)	32.	8.	2.	12.	..	8.	3.
Do stalk,	13.	14.	..	25.	..	16.	19.
Cauliflower,	34.	14.	2.	3.	25.	11.	1.
Cabbage,	31.	15.	3.	23.	10.	12.	2.
Potato, [roots,]	48.	28.	4.	3.	4.	6.	1.
Beet, [root,]	24.	53.	2.	4.	2.	2.	1.
Carrot, [root,]	53.	13.	5.	9.	7.	4.	2.
Parsnip, [root,]	49.	16.	6.	11.	2.	4.	3.
Radish, [root,]	21.	..	3.	8.	40.	7.	8.

We have avoided giving the *decimals*, as we only intend a sufficient sketch of the analysis to furnish practical hints—and the approximation is sufficiently accurate for this purpose.

The information which the practical cultivator will gather from the foregoing, is something like this; that *potash* enters more largely and uniformly into the composition of vegetables than any other of these elements, and hence that *wood ashes* are among the most generally useful applications to the kitchen garden. Next to this, common soda (which may be had very cheaply at the wholesale druggists,) is highly important. *Phosphoric acid*, (which may be furnished in the shape of bone dust,) is also an important element, as well as *sulphuric acid*.—Lime and sulphuric acid, also considerable constituents, may be easily supplied by manuring with plaster (gypsum.) *Silica* for the most part enters very slightly into the composition of the above vegetables, with the exception of onions, of the ashes of which it forms 19 per cent. Coal ashes ought to be as beneficial to onions, therefore, as to corn, both of which largely demand this substance, of which coal ashes are mainly composed.

To raise good peas, a soil should contain plenty of potash, soda, and phosphoric acid, for beans rather more potash is necessary; celery demands potash, lime, and phosphoric acid; onions soda, lime, sulphuric acid and silica; cabbage, a large proportion of lime; potatoes, chiefly potash and soda; beets the same—but most of soda; carrots potash and lime; and radishes a large proportion of phosphate.

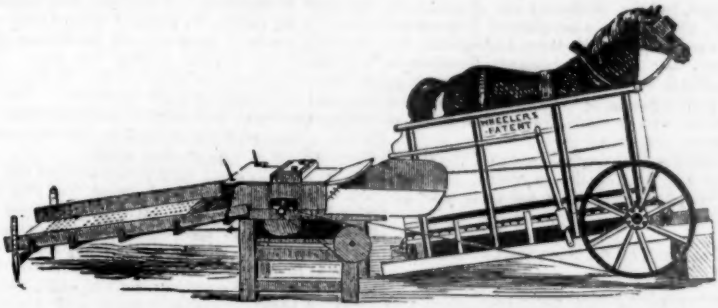
An easy way of applying potash or soda is to dissolve about ten lbs. in a hogshead of water, and sprinkle thoroughly a load of crude peat or swamp muck. This will reduce the peat to the condition of an active manure, and then if used precisely as manure, it will furnish a proper supply of potash and soda for such vegetables as require it.

It is owing chiefly to the want of potash in the soil, that beans and other vegetables requiring *new* soil, refuse to yield good crops in old gardens. In such soils the potash is exhausted by long cropping.

The judicious use of animal and saline manures, will enable the kitchen gardener not only to raise much larger, but much better crops of vegetables than by the ordinary course of cultivation.—*Horticulturist.*

Receipe for Making Johnny Cake.—Three tea cups of Indian meal, one tea cup full of wheat flour, two tea cups full of milk, and one of cream; one egg, one tea spoonful of salaratus and half a teaspoonful of salt.

A Farmer's Daughter.



Wheeler's Rail Road Horse Power and Thresher.

The above engraving is a correct representation of Wheeler's Rail Road Horse Power and Thresher. This machine was exhibited during the late agricultural Fair at Xenia, also at the Hamilton county Fair, by Mr. Emery, of the Albany Agricultural Warehouse. All who saw it in full operation, were highly delighted with it, and quite a number of machines were sold or engaged during Mr. E.'s short visit in the State.

The whole machinery is very portable, and occupies but little space, so that it can be placed on an ordinary barn floor, and worked during bad weather if desired. The work can be done with one pair of horses, and three or four hands—the force of a moderate sized farm without calling upon neighbors for aid. It executes the work as well as the larger machines, and quite as fast in proportion to the force employed, say 175 to 225 bushels of wheat or rye per day.

A pretty general opinion prevails among those that have no practical knowledge of the rail road horse power, that they are injurious to horses, causing lameness, &c., but from the testimony of a large number of persons who have used them there is reason to doubt the correctness of this opinion. The machines are made for one and two horses; and after becoming a little accustomed to it, the labor does not appear more severe for the horses than threshing with other kind of machines. See Advertisement.

Striped Bugs--Fruit, &c., in Indiana.

In a letter from Richmond, Indiana, dated June 7th, the writer, (G. M.,) says he has tried the method of preventing the ravages of the striped bug, recommended by P. Custiss—(dusting with lime,) and finds it of no avail for *Hoosier bugs*. They would crawl through the lime, coating them with white, and continue their depredations on the underside of the leaves, &c., till the plants were destroyed. He also tried covering with boxes, but the insects crawled under or over them; and some experiments with turpentine, oil, cotton, &c., had been of little if any use. He had to plant three successive times before his vines escaped. He adds:

"Our wheat crop at the present time appears equal to an average—though the drouth is at present severe. Corn has suffered severely by the cut worm—many fields being quite destroyed. Apples, peaches and cherries will be scarce, owing to late frosts. Plums and grapes have set finely, and the curculio is doing less injury than usual.—I dusted my plum trees every morning with ashes, while the dew was on, and the fruit has mostly escaped; though many of my neighbors' trees have also escaped without any precaution."

Ohio State Teachers' Association.

The second Semi-annual Meeting of this Association will be attended in Springfield, on Tuesday and Wednesday, the 3d and 4th days of July next, and the business of the session will be conducted in accordance with the following

ORDER OF EXERCISES.

Morning Session, Tuesday, July 3d.

Introductory Address, by Hon. S. GALLOWAY, the President.

Report on "Moral Instruction," by Wm. N. EDWARDS, of Dayton.

Discussion—"Would the interests of Schools and the cause of Education be promoted by creating the office of State and County Superintendent of Schools?" Opened by M. G. WILLIAMS, of Dayton, and M. F. COWDERY, of Sandusky City.

P. M.

Report on "Analysis of English Words," G. R. HAND, O. WILSON and J. M. EDWARDS, of Cincinnati.

Discussion—"Can Union Schools and Classified Public Schools be made to obviate the necessity of sustaining private High Schools and Academies?" Opened by H. H. Barney, of Cincinnati, and A. J. Rickoff, of Portsmouth.

Address by Hon. C. L. VALLANDIGHAM, of Dayton.

Report on "Physical Education," by——of Springfield.

EVENING.

Report on "Teaching Geography," by Wm. F. DOGGETT, of Dayton.

Lecture on the "Immensity of Creation," by Rev. Prof. F. MERRICK.

WEDNESDAY, JULY 4TH, A. M.

Discussion—"Can a thorough professional education of Teachers be secured without the establishment of one or more State Normal Schools?" Opened by E. E. BARNEY and E. D. KINGSLEY.

Oration, by Hon. BELLAMY STORER, of Cincinnati.

Report on the "Importance to Teachers, of possessing a knowledge of other branches than those required to be taught," by J. HURTY, REV. MR. MCMILLAN and J. W. GATES.

Discussion of Miscellaneous questions.

P. M.

Report on "Teaching Geography," by C. KNOWLTON, D. G. A. DAVENPORT, and H. F. HANDY, of Cincinnati.

Discussion—"What action ought this Association to take for the purpose of securing a thorough revision of the School Laws of the State?" Opened by C. F. McWILLIAMS, of Springfield, and L. G. PARKER, of Urbana.

Lecture on Geology, by Rev. Prof. F. Merrick, of Delaware.

Report on 'Primary Teaching,' by Prof. A. D. WRIGHT, Rev. S. L. ADAIR and F. HOLLENBECK, of Perrysburg.

The precise order of the exercises here announced may,

perhaps, be changed, but the Addresses and Reports are *positively* secured, and, beside, a number of Reports are confidently expected from Committees appointedby the former Executive, and from Professional Teachers in Springfield. Should it be deemed advisable to cotinue the session during the evening of Wednesday, an Address has been secured and one or more Reports will be ready for presentation.

A Quartette and Glee Club from Cincinnati, will attend to give animation and zest to the exercises. Editors, throughout the State, are earnestly requested to give notice of the Meeting.

By order, A. D. Lord,
Chairman of the Excutive Committee.
Columbus, June 1st, 1849.

HOUSEWIFE'S DEPARTMENT.

Another Letter to Country Girls.

Coloring Green, Pink and Yellow—Carpets and Window Curtains.

(*By Mrs. Swisshelm, of the Saturday Visitor.*)

I promised Anniss to give a recipe this week for coloring green. Well, Anniss, get an apothecary to put pulverized indigo and oil of vitriol into a bottle, three ounces of the vitriol to one of indigo. The bottle should not be more than one-third filled, for sometimes it ferments. Let it stand at least two weeks, but the older it is the better. Shake it well once a day for a week or more; and if it becomes too thick to be shaken, add a little water.—This mixture, with warm water and alum, will color any shade of blue in five minutes. Every housekeeper should keep a little in a bottle. Ribbons, cravats, and other trifles that become faded and dirty, if carefully washed and rinsed, may be to look "amaist as weel's the new." An article should be made white and clear before attempting to color it any light color. This can be done by dipping it into acid water after washing, or by exposing it to the steam of burning brimstone in a close box or barrel. When the articles are ready for your blue dye dissolve allum or cream of tartar in warm water, and stir in your indigo mixture until the water appears the proper shade, then have your things wet to keep them from staining, and dip carefully. They must not be washed after, but ironed before they are quite dry, on the wrong side, with an iron not very warm. In the same way a little turmeric, boiling water and alum will color any shade of yellow, from pale straw to bright gold. Scarlet lake and cream-of-tartar will produce any variety of pink. It is used to renew flesh-colored silk stockings when they are washed, and a few drops of the mixture added, will produce varieties of dove color. An economical mother, who prides herself on having her children look as well as her neighbors, will find an important auxiliary in the art of renewing old cloths with a little new color.

But it was a receipe for dying carpet chain green I was to give Anniss. When your blue mixture in the bottle is ready for use, make a strong yellow dye. Country folks generally use hickory bark for this, but I like the bark of the black oak best. Some use peach tree leaves; but little matter what you use, so that you make a strong, clear yellow die. It must be boiled in a copper kettle; and when your bark is strained out, throw in half a pound of alum for every pound of yarn, then pour in the mixture and stir it—try it with a thread until it is the right shade, then put in your yarn. The dye must be boiling—the yarn clean and dry. It should be stirred and left in ten or fifteen minutes; then wrung out and aired. If not green enough, but it in again. Two dips is generally enough. If it shades too yellow, put in more blue. All greens are a combination of yellow and blue. This receipe will color wool a rich *grass* green, and cotton a most delicate *pea*. You can put the two materials in together, and each will come out its own shade. I have colored a dark bottle green in the same dye after the *grass* and *pea* came out, by dipping woollen yarn into black dye until it was about half colored; then washing, drying and coloring green. A piece of calk as large as a walnut for every pound of yarn should be thrown into the dye to prevent the vitriol's rotting the yarn. This green should not be washed after coloring. It looks better without, and will stand its color to the last. The carpet under my feet now, has been in constant use for fifteen years. The green was colored in this way, and looks almost as fresh now as the new grass.

Every country girl knows how to color red with madder, but every one does not know that after she is done with her red dye, when she is making a carpet, she should make a yellow dye and mix it with the exhausted red to make an orange; or color woollen yarn yellow; then throw it into the red dye instead of throwing the dye out, and you will have another variety of color, rich and beautiful! A beautiful purple is made with logwood and alum, and a piece of verdigris, as large a nutmeg, added for every two pound of yarn, improves it very much.—This color looks best on cotton material.

I put no yellow in a carpet except what is colored with ley and copperas, because it does not fade. Another thing: I never let a weaver weave a carpet for me "well"—that is, beat the filling in until it is close and thick, because it will not wear half as long as one that is woven thin or loosely. When the chain or woof is stretched and strained tightly over the filling, especially rags, it cuts out directly. So much for carpets. And now I have a word to say to you, country girls, about curtains.

Window Curtains.—Not one in five hundred of you have any taste about a curtain! You get a stiff paper blind with big posies on it, and fasten it against your window, then roll it half way up and put a short white curtain, as stiff as starch can make it, with a prim ruffle on it, across the lower part; and I never could tell what the window looked like, unless it is another of the same. It is, if possible, stiffer and uglier than the bare venetian blinds, with which city folks are wont to decorate their parlors. I do wish you would get into the habit of looking at the clouds until you get some taste for drapery.—Get a curtain for your window always, that will reach from the top down to the floor. Gather it full, so that it will hang in folds, and for mercy sake, never starch it!—If you use a paper blind, let it be for a blind, just to darken the room, and put a curtain over it. If you cannot afford to buy a curtain, take an old muslin sheet, net a fringe for it, and put it up. One pretty, cheap summer dressing for a window is a nankeen blind. You can get muslin that will answer, for a fip a yard, then color it with ley, you know the sun cannot fade that. Put a blind of this, made to roll up, against the window, and put a long white curtain over it. The light coming through the buff muslin has a pretty effect; and a clean room, with the windows dressed in this way, has a pleasant, cool look that is very inviting. A very pretty, rich-looking winter curtain can be made with cheap red calico—without any figure is the prettiest—then take old muslin that is too thin and weak for other use, and color it with ley and copperas, line your red curtain with it, and you would scarce believe what a soft, rich, warm look it has; or how much such curtains will add to the appearance of a room! Another way of making home look homelike is, putting a cushion on a settee, a chair and stool. A room without a cushion on anything has a miserable, uncomfortable look. If I had a settee and could not get a cushion for it, I would fold a coverlet, or dark quilt, and lay on—make a pillow of hay, and put a calico cover on it, for one end; then when any one comes in tired or weak, he can lean down and rest so nicely; and it makes a room look comfortable. I can tell no reason why rich folks who do not work should have *all* the comforts of life to themselves, when any one who pleases might have a good share of them, if they would just think of it! I have many a time gone into the houses of rich farmers, when I thought their best room was not half as comfortable looking as their *barn*. Here one could find a nice place to loll and rest on the hay or straw; but there, there was nothing but bare benches and chairs to sit on, bolt upright. This

is the fault of you girls! You could get cloth and hay enough to make a few cushions, if you liked; but you don't like, for you are a regular set of chatter boxes; and you will not be good and do as I want you! Anniss says she will try to be good, but I am afraid it will end in trying; and there—they are calling me to supper.

Wheeler's Patent Improved Portable RAIL ROAD HORSE POWERS AND OVER-SHOT THRESHERS AND SEPARATORS.

HAVING sold about two hundred and fifty sets of these Powers and Threshers during the past eighteen months, many of which were purchased by some of the large Wheat Growers in this State, Vermont, Ohio, Indiana, Michigan, Illinois, Wisconsin, and Canada, and without exception having given entire satisfaction, (which was guarantied in all cases,) I do not hesitate to recommend them to Farmers and Mechanics desiring such machines, as being in my opinion the most convenient, if not superior in all respects, to any others now in use. Three men, with a Single Power, can thresh 75 to 100 bushels of wheat or rye, or four men with a Double Power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day; and with fanning mill attached to the Power, and one man to attend it, the grain can be cleaned for market at the same time.

They can be taken apart and packed very compactly, and forwarded to any distance by canal, rail road, or wagon. The Single Power, with Thresher, Separator, &c., weighs nearly 1100 pounds; the Double Power, with the other apparatus complete, weighs nearly 1700 pounds.

Price of the Single Power,	$80
do do Thresher,	95
do Separator and Fixtures,	10
do Bands for Driving, etc.,	6,20

The price of the Double Power, Thresher, Separator, etc., complete, is $145, including rights of using, or $25 more than Single Power.

Saw Mill, complete, in running order,	35
Fan Mill with Crank and Pulleys,	30

The above are sold singly or together as desired.

All Machines and Powers are warranted to perform according to the foregoing statements, and in case the purchaser is not satisfied, himself being the judge, they may be returned within three months, at my expense, and the purchase money refunded.

TERMS.—Cash on delivery of the machines. All orders should be addressed Albany, and will be promptly attended to, and machines delivered in care of rail road, canal or steam boat in Albany, Rochester, or Buffalo, the lowest rates for transportation from Albany only being added to the published prices. Remittances by mail at my risk.

These machines have been exhibited in operation at the fairs of the New York State Agricultural Society 1847 and 1848, each time receiving the premium for the best Tread or Endless chain Power. It was also exhibited in operation at the Colonial Fair at Coburg, Canada, the past year, where it received a diploma and the highest encomiums of the committee—it being made out of the province could not receive any premium. It was also exhibited in operation at the District Fair, under the patronage of the Ohio State Board of Agriculture, held at Xenia in October last, where it received from the committee of the Board, a DIPLOMA for being, in their opinion, the best Horse Power and Thresher they had ever seen in operation, and in their report they warmly recommended it to the farmers of Ohio. Among the committee's names attached to the diploma, are Gov. ALLEN TRIMBLE, Col. SAMUEL MEDARY, GEO. TOWNSLEY, Esq., ABNER REED, JEREMIAH G. GEST.

It was also exhibited in operation at the Fair of the Hamilton Co. Agricultural Society, near Cincinnati, Ohio, with like success as at Xenia. It was also exhibited in operation at the Fair of the Monroe County Society at Rochester, N. Y., with the like result. Also at the Rensselaer County held at Troy, in 1847 and 1848,—at the Saratoga county, held at Ballston, N. Y.,—at the Worcester county, held at Worcester, Mass.,—and in no case has its exhibition and operation failed to secure to it the highest regard and diplomas and premiums for its utility, simplicity, durability, efficacy and cheapness of cost.

Having increased facilities for the manufacturing of the above machines in this city, the public can be supplied with them at short notice, at wholesale and retail.

To those farmers who wish the machines to sell, and will put them running in their vicinities, a fair discount will be allowed.

For terms, and conditions of sale, and warranty, see the Albany Cultivator, Genesee Farmer, Prairie Farmer, and American Agriculturist; also, catalogues and circulars of the Albany Agricultural Warehouse and Seed Store.

These machines are acknowledged superior by all who have used them, and having been extensively used since 1841, are known to be durable—and are much improved in several respects.

The cost of threshing with these machines, has been variously estimated at from one-half to one-third that with the ordinary sweep powers.

Annexed is a statement of expenses of operating a two horse machine, compared with the ordinary kind—as given by an extensive farmer in Illinois, the past season:

Five men in threshing time to thresh and clean, averaging 200 bushels per day for market, ... $5 00
Two horses, ... 1 00
Boarding 5 men and two horses, at 3s, ... 2 63

$8 63

Amounting to a little over 4½ cents per bushel—while he was enabled at all times to take advantages of prices, seasons, &c., and to do his work without being dependant upon others for labor or machines.

While his expenses, when he hired machines, were never less than the following:

For threshing 250 bushels per day, at 5 cents,	$12 50
Furnishing four horses of six, (2 belonging to machine,)	2 00
Six men, (beside two with machine,)	6 00
Boarding all hands and horses, ...	5 25

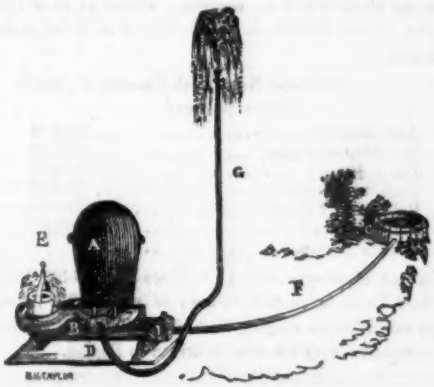
$25 75

Amounting to about 10½ cents per bushel. And if to this be added the average loss by imperfect threshing and separation of grain from straw, more than with Wheeler's Thresher and Separator of not less than five per cent of grain at one dollar per bushel, would amount to nearly 15½ cents per bushel, or more than three times the expense with Wheeler's machine. To say nothing of the delays and losses consequent upon depending upon others, &c.

The foregoing is but a fair statement of the expenses of the majority of the grain-growing farmers for threshing; and where labor and grain are valuable, these savings are well worth counting.

All orders and communications are solicited, and will receive prompt attention. HORACE L. EMERY.
No. 369 & 371 Broadway, Albany, N. Y.

June 15, 1849.



Improved Hydraulic Ram.

SEVERAL of these very useful machines are for sale at the office of this paper; (also a limited supply of lead pipe,) and the subscriber will attend to the business of putting them in operation, if not too far distant from Columbus, for a moderate compensation. For particulars as to mode of operation, &c., see various articles in last year's volume of Ohio Cultivator—also, O. Cult. Almanac.

Columbus, June 15, 1849. M. B. BATEHAM.

440 HEAD OF FINE SHEEP FOR SALE.

THE subscriber having sold his farm, he wishes to sell his flock of Sheep at private sale. A great deal of care has been bestowed upon breeding strong healthy constitution, length of staple, and weight of fleece. The flock has been improved by some of the best Saxony Bucks in the country, and those desiring to purchase fine sheep will find this a rare opportunity to make selections. Purchasers can be suited in number. The owner will reserve the fleeces. Selections can be made before clipping, which will be about the 1st of June, and a short credit will be given if desired. Samples of the wool can be seen by calling on the Editor of the Ohio Cultivator, at Columbus; and any information by addressing the subscriber at Bolivar, Tuscarawas County, Ohio.

May 1, 1849—2t p D. YANT.

PETERS' BUFFALO WOOL DEPOT.
(THIRD YEAR.)

I Have established a Wool Depot upon the following plan: 1st.—The wool is thrown in 10 sorts: Merino Wool being No. 1, the grades numbering down from 1 to 5; the coarsest common wool being No. 5. Saxony wool is thrown into extra, and prime 1 and prime 2. Combing and De Laines make 2 sorts more.

2d.—I charge for receiving, sorting, storing and selling, *one cent per pound*; this includes all charges at the depot, except insurance.

3d.—Sales are made for cash, except when otherwise directed by owner.

☞ All wool consigned to me should be marked with the owner's name.

Warehouse corner of Washington and Exchange streets,
Buffalo, May 1, 1849. T. C. PETERS.

The Markets.

News from Europe continues of an exciting character, but has no material effect on the markets. Bread stuffs continue low, with no immediate prospects of improvements. The accounts of the growing crops in Europe as well as in this country, are generally favorable.

Cincinnati, June 13.—Flour 3,75 @ 3,80 per barrel; Wheat 75 @ 78 per bu.; Oats 30 @ 31; Corn 28 @ 30; barley 70 @ 75; flax seed 87 @ 90; Potatoes 70 @ 75; Dried apples 50 @ 55 cts. per bu.; Peaches 140 @ 150.—Pork, mess, $9 @ 9,50 per bbl. Lard 6 cts. per lb.; Butter for packing, 9 @ 10 cts.—best roll butter retails at 20 cts. Cheese continues at 6¼ @ 6¼ for shipping—extra quality for retail, 8 @ 10 cts. *Wool* is quoted, full blood 28 @ 30; ¾ do 26 @ 27 cts.; ½ do 25 @ 2[illegible] cts.; ¼ do 23@ 24 cts.; common 22@ 23 cts.; pulled 20 @ 22 cts.

Cleveland, June 9.—Flour $4; Wheat 81 @ 83 cts.; Corn 42; Oats 25; Barley 45; Potatoes 87; Pork $10.—Butter 8 @ 10 cts; Cheese 5 @ 6¼ cts. Wool 18 @ 25 cts.

New York, June 13.—Flour is active but at low prices, say $4,69 @ 4,75 for western. Wheat $1,10 @ 1,15 per bu. Corn 60 @ 62 cts. Pork, 8,37 @ 10,25 for prime and mess.

From the New York Express of June 8.

Wool Market.

Am. Saxony	38@40
Do. Merino fleece	35@35
Do. ½ ¾ blood	30@32
Com. to ½ blood	27@29
Pulled No. 1 & su	30@32
Smyrna	10@12
Buenos Ayres	7

Cattle Market.—*June* 11 —There were 1400 head of Beef Cattle in market to-day, of which 1200 found ready sale at prices ranging from $8 to $9,25 per 100 lbs Two hundred were left over or driven to Boston.

KINDERHOOK WOOL DEPOT.

THE success of this enterprise, and the steady increase of business during the past four years, has induced the subscriber to associate with him Mr. Thomas M. Burt, as a partner in the business. The integrity and correct business habits of this gentleman are well known to many prominent men throughout the State; and for more particular information reference may be made to R. H. King, Esq., or to John T. Norton, Esq., of Albany.

With increased facilities for extending the business the enterprise will be conducted on the same principles as heretofore.

1. The fleeces will be thrown into sorts, according to style and quality.
2. A discrimination will be made between wool in good or bad condition.
3. All who desire it, can have their clips kept separate.
4. The sales will be made invariably for cash.
5. The charges will be, for receiving, sorting and selling, one cent per pound, and the insurance, which will be 25 c. on $100 for a term of three months.
6. Liberal advances in cash made on the usual terms.

Wool forwarded from the West and North, should be marked H. B. & Co., Kinderhook, N. Y., with the initials of the owners names on each sack and shipped to East Albany.

H. BLANCHARD.

Kinderhook, May 18th, 1849.

After the 1st of June the business will be conducted under the names and firm of H. Blanchard & Co.

Reference can be had to

Dr. J. P. Beekman, Kinderhook, New York,
B. P. Johnson, Albany, "
L. A. Morrell, Lake Ridge, "
O. S. Curtis, Canaan, "
C. W. Hull, New Lebanon, "
J. Murdock, Wheatland, "
C. H. Richmond, Aurora, "
Nathaniel Sawyier, Cincinnati, Ohio,
W. D. Wellman & Co., Massillon, Ohio,
Freeland, Stewart & Co., N. Y. City,
R. Carter, Chicago, Illinois.

COLUMBUS PRODUCE MARKET.

Market Days, Tuesdays, Thursdays and Saturdays.

Corrected for the Ohio Cultivator, June 14, 1849.

GRAIN.				POULTRY.		
Wheat, ₱ bu,	65 @	70		Turkeys, each,	37@50	
Indian corn,	30 @	32		Geese, "	25 @	37
Oats,	25 @			Ducks, "	12 @	5
PROVISIONS.				Chickens, "	12 @	15
Flour, retail, bbl,	400 @			SUNDRIES.		
" 100 lbs	2,00 @	2,25		Apples, bu,	60 @	75
" Buckwheat,	@			" dried,	50 @	62
Indian meal, bu	37 @	40		Peaches, dried,	1,50 @	1,75
Hominy, quart,	3 @			Potatoes,	87 @	100
Beef, hd qr	@			Onions,	1,00 @	
" fore qr,	@			White beans bu	1,00 @	
Pork, mess, bbl,	9,00 @	9 50		Hay, ton,	5,00 @	6 00
Hogs, ₱ 100 lbs,	@			Wood, hard c'rd	1.50 @	2,00
Hams, country lb,	6 @	7		Salt, bbl., fine	2.12½ @	2,25
" city cured,	7 @	8		SEEDS.		
Lard, lb., ret.,	5 @	6½		Clover, bu.,	2,75 @	3.00
" in kegs or bls,	@			Timothy,	@	
Butter, best rolls,	12½ @			Flax,	75 @	80
common,	10 @	9½		ASHES		
in kegs,	8 @	9		Pot, 100 lbs	3.50 @	4,00
Cheese,	5 @	6½		Pearl,	4,00 @	4.50
Eggs, dozen,	7 @	8		Wool, common,	20 @	22
Maple sugar, lb,	7 @			half bl'd,	23 @	25
molasses, gal,	62 @	70		full bl'd,	@	
Honey comb, lb,	10 @	12½				
" strained,	12½ @	14				

150 THRESHING MACHINES.

THE subscribers have on hand nearly finished upwards of One Hundred

Pitt's Patent Separators.

Which, with the late improvement, are the best lot of Machines ever offered for sale in Ohio or elsewhere. Also,

CARY'S DOUBLE PINION AND OTHER HORSE POWERS.

The above Machine is capable of threshing and cleaning fit for market fifty bushels of Wheat in an hour.

C. M. RUSSELL & CO.

Massillon, Stark Co., Ohio, April 1, 1849.

REVOLVING HAY RAKES.

A constant supply of the most approved patterns and styles Revolving Hay Rakes will be kept on hand, during the season at the Seed Store and Agricultural Warehouse, Nos. 33 and 35 Lower Market street, Cincinnati. Price, nine dollars each.

JOHN F. DAIR & CO.

May 1st.—6t.

Advertisements suited to the character of this paper, are charged at the rate of 6 cents per line for the first, and 3 cents for each subsequent insertion.

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